REMARKS/ARGUMENT

Objected to Claims 5, 7, 13, 15 and 17 have been amended per Examiner's instructions. Accordingly, the objections are overcome.

Claims 10-20 are allowed.

Claims 2-8 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Applicants traverse this rejection for the reasons set forth below.

Applicants have reviewed the "Clarification of "Processes" under 35 USC 101" identified by Examiner as supporting the above grounds of rejection. Applicants have also reviewed independent Claims 2 and 5 very carefully. After reviewing both, Applicants believe Claims 2 and 5 to be compliant with 35 USC 101 in their present form, for the following reasons:

In order to be compliant with 35 USC 101, a process must (1) be tied to another statutory class (such as a particular apparatus), *which is what Examiner requests Applicants to do*, OR (2) transform underlying subject matter (such as an article or materials) to a different state or thing. Claims 2 and 5 are compliant with (2) in their present form.

Independent Claim 2 requires and positively recites, a method of frequency offset compensation, said method comprising the steps of: "receiving an input signal **wherein frequency offsets have been translated to DC offsets**", "first determining a current maximum peak value of said input signal", "second determining a current minimum peak

value of said input signal", "**calculating an average of said current maximum peak value and said current minimum peak value** to yield a DC offset estimate" and "**subtracting said DC offset estimate from said input signal** to yield a frequency compensated output signal", "wherein said step of determining said current maximum peak value comprises the steps of: comparing said input signal with a previous maximum peak value; if said input signal is greater than said previous maximum peak value, **adding said current maximum peak value to a first difference between said input signal and said previous maximum peak value, said first difference multiplied by a maximum charge coefficient** to yield said current maximum peak value; and if said input signal is not greater than said previous maximum peak value, **subtracting a second difference between said current maximum peak value and said input signal multiplied by a maximum discharge coefficient from said previous maximum peak value** to yield said current maximum peak value".

The limitation "an input signal **wherein frequency offsets have been translated to DC offsets**" represents an actual physical signal and is known to those of ordinary skill in the art. Thereafter, the limitations "**calculating an average of said current maximum peak value and said current minimum peak value** to yield a DC offset estimate" and "**subtracting said DC offset estimate from said input signal** to yield a frequency compensated output signal", represents a transformation of the "input signal" into "a frequency compensated output signal" - which is a transformation of signal to a different state or thing, which complies with the requirements of 35 U.S.C. 101. Accordingly, the 35 U.S.C. 101 rejection of Claim 2 is improper and must be withdrawn.

Claims 3, 4 and 8 depend from Claim 2 and are similarly allowable.

Independent Claim 5 requires and positively recites, a method of frequency offset compensation, said method comprising the steps of: "receiving an input signal **wherein**

frequency offsets have been translated to DC offsets", "first determining a current maximum peak value of said input signal", "second determining a current minimum peak value of said input signal", "calculating an average of said current maximum peak value and said current minimum peak value **to yield a DC offset estimate**" and "**subtracting said DC offset estimate from said input signal to yield a frequency compensated output signal**", "wherein said step of determining said current minimum peak value comprises the steps of: comparing said input signal with a previous minimum peak value; if said input signal is not greater than said previous minimum peak value, **subtracting a first difference between said current minimum peak value and said input signal, said first difference multiplied by a minimum discharge coefficient and subtracted from said previous minimum peak value to yield said current minimum peak value**; and if said input signal is greater than said previous minimum peak value, **adding said current minimum peak value to a second difference between said input signal and said previous minimum peak value, said second difference multiplied by a minimum charge coefficient to yield said current minimum peak value**".

The limitation "an input signal **wherein frequency offsets have been translated to DC offsets**" represents an actual physical signal and is known to those of ordinary skill in the art. Thereafter, the limitations "**calculating an average of said current maximum peak value and said current minimum peak value to yield a DC offset estimate**" and "**subtracting said DC offset estimate from said input signal to yield a frequency compensated output signal**", represents a transformation of the "input signal" into "a frequency compensated output signal" - which is a transformation of signal to a different state or thing, which complies with the requirements of 35 U.S.C. 101. Accordingly, the 35 U.S.C. 101 rejection of Claim 5 is improper and must be withdrawn.

Claims 6 and 7 depend from Claim 5 and are similarly allowable.

Claims 10-20 stand allowed. Claims 2-8 stand allowable for the reasons set forth above. Applicants respectfully request withdrawal of the rejections and allowance of the application at the earliest possible date.

Respectfully submitted,

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